

Summary of last lecture

- Data
- Information
- Database
- Database Management System
- Functions of Management System
- Applications

Purpose of Database Systems

File-Processing System

- A **File processing system** is a collection of **files** and programs that access/modify these **files**.
- Typically, new **files** and programs are added over time (by different programmers) as new information needs to be stored and new ways to access information are needed.

Disadvantages of File Processing System

- Data redundancy and inconsistency
- Difficulty in accessing data
- Data isolation
- Integrity problems – consistency constraint
- Atomicity problems – atomic
- Concurrent-access anomalies
- Security problems – data abstraction

Advantage of DBMS

- ❑ Controlling Data Redundancy
- ❑ Sharing of Data
- ❑ Data Consistency
- ❑ Data Integrity
- ❑ Data Security
- ❑ Data Independence
- ❑ Backup and Recovery Procedures

Disadvantage of DBMS

- ☐ Increased costs
- ☐ Management complexity
- ☐ Frequent upgrade/replacement cycles
- ☐ Database Damage